

AMENDMENTS TO THE CLAIMS

1-23. (Canceled)

24. (New) A valve positioning system for use with a shiftable valve stem, the system comprising:

a housing mountable adjacent the valve stem and having a groove;

a receiver coupled to the housing and disposed adjacent the groove;

an assembly mountable to the valve stem, the assembly including a magnet array and a transmitter, the magnet array and the transmitter mountable to the valve stem, the magnet array extending into the groove to a location adjacent the receiver, the assembly arranged to cooperate with the receiver to generate a signal indicative of a position of the valve stem relative to the housing.

25. (New) The system of claim 24, wherein the assembly includes a pair of halves mountable about the valve stem.

26. (New) The system of claim 24, wherein the receiver comprises a U-shaped cross-section aligned with the groove.

27. (New) The system of claim 24, wherein the transmitter is mounted adjacent the magnet array.

28. (New) The system of claim 24, wherein the receiver is arranged to generate a correction signal.

29. (New) The system of claim 24, wherein the receiver is adapted to monitor the signal to indicate changes in the position.

30. (New) The system of claim 24, wherein the receiver comprises a Hall effect sensor.

31. (New)The system of claim 24, wherein the receiver and the assembly comprise a giant magnetoresistive device.

32. (New)The system of claim 24, wherein the receiver and the assembly comprise a potentiometer.

33. (New)The system of claim 24, wherein the magnet array is mounted to a magnet holder.

34. (New)A process control valve having a valve positioning system and comprising:

a shiftable valve stem operable to shift the position of a control element;

a housing mounted in a fixed position adjacent the shiftable valve stem, the housing including a receiver disposed adjacent a groove; and

an assembly mounted to the valve stem and including a magnet and a transmitter, the magnet mounted in a position to extend into the groove to a non-contact location adjacent the receiver, the assembly arranged to cooperate with the receiver to generate a signal indicative of a position of the valve stem relative to the housing.

35. (New)The system of claim 34, wherein the magnet comprise a magnet array mounted to a holder.

36. (New)The system of claim 35, wherein the receiver comprises a U-shaped cross-section aligned with the groove, and the holder is secured to the valve stem.

37. (New)The system of claim 36, wherein the magnet extends at least partially into the cross-section of the receiver.

38. (New)The system of claim 34, wherein the receiver is arranged to generate a correction signal.

39. (New)The system of claim 24, wherein the receiver is adapted to monitor the signal to indicate changes in the position.

40. (New)The system of claim 34, wherein the receiver and the assembly comprise a giant magnetoresistive device, a Hall effect sensor, or a potentiometer.

41. (New)A process control valve having a valve positioning system and comprising:

a shiftable valve stem disposed in a yoke and coupled to an actuator, the valve stem operable to shift a position of a control element;

a receiver mounted in a fixed position within the yoke and adjacent the valve stem, the receiver comprising a groove oriented along the valve stem; and

a magnet coupled to a transmitter, the magnet and the transmitter mounted to the valve stem, the magnet mounted in a position to extend into the groove to a non-contact location adjacent the receiver, the magnet and the transmitter arranged to cooperate with the receiver to generate a signal indicative of a position of the valve stem relative to the fixed yoke.

42. (New)The system of claim 41, wherein the magnet comprise a magnet array mounted to a holder, the magnet array extending at least partially into the cross-section of the receiver.

43. (New)The system of claim 41, wherein the receiver is further arranged to generate a correction signal, and to communicate the correction signal to the actuator.